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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,674	04/13/2001	Shunpei Yamazaki	12732-028001	2128
26171	7590	01/24/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			MACKOWEY, ANTHONY M	
			ART UNIT	PAPER NUMBER
			2623	
DATE MAILED: 01/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/833,674

Applicant(s)

YAMAZAKI ET AL.

Examiner

Anthony Mackowey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 6-9, 12-35, 38-43, 46-53, 56-59, 62-85, 88-93 and 96-100 is/are pending in the application.
- 4a) Of the above claim(s) 13-34, 39-42, 47-50, 63-84, 89-92 and 97-100 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-9, 12, 35, 38, 43, 46, 51-53, 56-59, 62, 85, 88, 93 and 96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2001, 25 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/13/2005</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 13, 2005 has been entered.

### ***Response to Arguments***

Applicant's arguments filed October 13, 2005 have been fully considered but they are not persuasive.

Applicant presents arguments that neither Ritter or Harkin teach a device having pixels, each of which includes a light emitting element and a sensor for reading biological information of a user, wherein the light emitting element comprises a cathode, light emitting layer, and an anode. Applicant cites col. 9, lines 30-34 and 56-64 of the Harkin reference disclosing that the fingerprint sensor may be incorporated in a display window of a telephone housing overlying a liquid crystal display device. Examiner cites col. 9, lines 37-40, in which Harkin teaches the fingerprint sensor and the thin film components required for the array fabricated directly on the surface of the upper plate of the display. Examiner also cites col. 9, lines 64-67 and col. 10, lines 1-14 in which

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Harkin teaches the display may be of types other than an LCD, such as an electroluminescent display. An electroluminescent display inherently has a cathode, light emitting layer and an anode.

In response to applicant's argument that nothing in Ritter or Harkin would have provided motivation to incorporate Harkin's fingerprint sensor in Ritter's system and that the fingerprint sensor of Harkin is contrary to the video approach described by Ritter, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 35 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 35 and 43 recite the limitation "means for reading biological information of a user by means of said sensor incorporated display" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim. Examiner has interpreted this limitation

as being redundant to the display device having pixels, each of which includes a light emitting element and a sensor for reading biological information of a user.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-9, 12, 35, 38, 43, 46, 51-53, 56-59, 62, 85, 88, 93 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (USPN 6,657,538, cited on applicant's IDS) in view of Harkin (USPN 6,327,376, corresponding to WO 99/28701, cited on applicant's IDS).

Regarding claims 1 and 51, Ritter discloses a system for identifying an individual and a portable information device (col. 4, lines 16-27), comprising: a display device (column 4, line 25-32); a means for checking read biological information with reference biological information (column 4, line 32-52); and a means for transmitting information about a checking result to a destination of communication in the case where said checking has matched (column 5, line 9-48).

Ritter does not disclose the display device having pixels, each of which includes a light emitting element and a sensor for reading biological information of a user or the light-emitting element comprises a cathode, a light emitting layer and an anode. Ritter

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also does not disclose a flash memory for storing reference biological information of said user.

Harkin discloses an electronic apparatus comprising fingerprint sensing devices constructed using transparent sense electrodes and combined with a flat panel display device such that fingerprints are sensed as the user is interacting with the display (column 9, line 14-63). Harkin further discloses the fingerprint sensor and the thin film components required for the array may be fabricated directly on the surface of the upper plate of the display (col. 9, lines 37-40), thus the display device has pixels including a light emitting element and a sensor for reading biological information. Regarding the light-emitting element comprising a cathode, and light emitting layer and an anode, Harkin discloses the display device may be an electroluminescent display, which inherently is comprised of these elements. It would have been obvious to one of ordinary skill in the art at the time the invention was made to read biological information of a user by means of a display as taught by Harkin in order to dispose the sensing device over a display while still allowing the output of the display to be viewed for use in the field of portable electronic products using displays such as mobile phones, smart cards, personal digital assistants (PDAs), and other portable computers while avoiding the need for a larger casing or sacrificing an area of the casing that could otherwise be used for other purposes (Harkin, column 4, line 8-35).

Ritter discloses storing the biometric keys (biological information on a SIM-card, which is inserted into a communication device (col. 1, lines 46-49). Page 10, first paragraph of the specification recites, "This portable communication device is identical

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with conventional ones in having an antenna 601, a transmission and reception circuit 602, a signal processing circuit 603 to compress, expand and encode signals, a microcomputer 604 for control, a flash memory 605, a keyboard 606, a voice input circuit 607, voice output circuit 608, a microphone 609, a speaker 610 and, in addition, this device further has a sensor- incorporated display 611, a checking circuit part 612, etc." Examiner takes Official Notice that flash memory for storing data is well known in the art of portable electronic and communication devices. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the communication device taught by Ritter to alternatively store the reference biological information in flash memory instead of a SIM-card. One would have been motivated to use flash memory because it is suitable for long time saving, with no power required for storage, and can be expanded (via replacement or additional cards) to store larger amounts of data.

Regarding claims 7 and 57, Ritter discloses a system for identifying an individual and a portable information device (col. 4, lines 16-27), comprising: a display device (column 4, line 25-32); a means for checking read biological information with reference biological information (column 4, line 32-52); and a means for transmitting information about a checking result to a destination of communication in the case where said checking has matched (column 5, line 9-48); and a means for notifying said user (provide client and operator with instructions via user interface), after said destination of communication receives information that said checking has matched, that communication between said user and said destination of communication has been authorized (column 4, line 32-52; column 5, line 9-33).

The Examiner notes that Ritter does not explicitly disclose notifying the user that communication has been authorized, but it is obvious if not inherent that the user is informed of the authentication decision. It would have been obvious to one of ordinary skill in the art at the time the invention was made to notify said user, after said destination of communication receives information that said checking has matched, that communication between said user and said destination of communication has been authorized in order to inform the user whether or not communication has been authorized so that the user may take appropriate action.

Ritter does not disclose the display device having pixels, each of which includes a light emitting element and a sensor for reading biological information of a user or the light-emitting element comprises a cathode, a light emitting layer and an anode. Ritter also does not disclose a flash memory for storing reference biological information of said user. Arguments analogous to those presented above for claims 1 and 51 are applicable to claims 7 and 57.

Regarding claims 35 and 85, Ritter discloses a system for identifying an individual and a portable information device (col. 4, lines 16-27), comprising: a display device (column 4, line 25-32); a means for checking read biological information with reference biological information (column 4, line 32-52); and a means for transmitting information about a checking result to a destination of communication through Internet (column 5, line 9-48; column 6, line 1-15).

Ritter does not disclose the display device having pixels, each of which includes a light emitting element and a sensor for reading biological information of a user (means



for reading biological information of a user by means of said sensor-incorporated display) or the light emitting element comprises a cathode, a light emitting layer and an anode. Ritter also does not disclose a flash memory for storing reference biological information of said user. Arguments analogous to those presented above for claims 1 and 51 are applicable to claim 35 and 85.

Regarding claims 43 and 93, Ritter discloses a system for identifying an individual and a portable information device (col. 4, lines 16-27), comprising: a display device (column 4, line 25-32); a means for checking read biological information with reference biological information (column 4, line 32-52); a means for transmitting information about a checking result to a destination of communication through Internet (column 5, line 9-48; column 6, line 1-15); and a means for notifying said user (provide client and operator with instructions via user interface) that the communication between said user and said destination of communication has been authorized after said destination of communication receives information that said checking has matched (column 4, line 32-52; column 5, line 9-33; see above discussion of claims 7 and 57).

Ritter does not disclose the display device having pixels, each of which includes a light emitting element and a sensor for reading biological information of a user (means for reading biological information of a user by means of said sensor-incorporated display) or the light emitting element comprises a cathode, a light emitting layer and an anode. Ritter also does not disclose a flash memory for storing reference biological information of said user. Arguments analogous to those presented above for claims 1 and 51 are applicable to claim 43 and 93.

Regarding claims 2, 8, 52 and 58, Ritter discloses that said biological information of said user is a palm pattern or a fingerprint (column 2, line 52-61).

Regarding claims 3, 9, 53 and 59, neither Ritter nor Harkin explicitly disclose that said biological information of said user is a pattern of a part of the palm of the user. The examiner takes Official Notice that palm imaging is well known in the art of biometrics. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a pattern of a part of the palm as said biological information in order to identify the user based on the pattern of the palm.

Regarding claims 6, 12, 38, 46, 56, 62, 88 and 96, Harkin discloses the sensor comprises a contact type area sensor (column 5, line 54-column 6, line 23, line 58-column 7, line 10).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 4,263,056 to Bensahel et al. is cited for teaching light emitting and photodetective diodes for use in a display device.

USPN 4,229,237 to Bensahel et al. is cited for teaching semiconductor components having both light emitting and light receiving properties.

USPN 6,028,581 to Umeya is cited for teaching and pixel cell array of an LCD having sensors for sensing inputs from a pen or human touch.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Mackowey whose telephone number is (571) 272-7425. The examiner can normally be reached on M-F 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AM  
1/20/06

JINGGE WU  
PRIMARY EXAMINER

